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CENTRAL INTELLIGENCE AGENCY

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INFORMATION REPORT

COUNTRY East Germany
 SUBJECT Development of Moving Field Tubes
 in East Germany

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THIS IS UNEVALUATED INFORMATION

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1. The serial production of the 2823-type moving field tube which was developed by the Werk fuer Fernmeldewesen was scheduled to start in 1954.¹ The components produced for the development work up to March 1953 were delivered to Sachsenwerk Radeberg to be employed in decimetric wave sets. The body of the tube consisted of hard glass, and the collector cap was of vacuum copper. The coil was made of molybdenum wire of a diameter of 0.3 mm and had a diameter of 8 mm. The electrical characteristics of the sample tubes were: an output capacitance of 300 mμ; width of band at 3,000 MHz of 150 MHz; amplification of 36 db; filament voltage (U_f) of 6.3 volt; filament current (I_f) of 1.1 amp; anode voltage (U_a) of 2 kV; anode current (I_a) of 0.5 to 1 mA; coil current (I_c) of 2 to 3 mA; collector current (I_{ko}) of 20 to 24 mA; magnetic field strength of 2,000 Gauss.
2. In 1952, the Werk fuer Fernmeldewesen HF developed a moving field tube for low power stages which could also be used as frequency converters.² The electrical characteristics were: an amplification of 30 db; an anode voltage of 2,000 volt; an anode current of 2 to 3 mA; collector current of 30 to 35 mA; and a magnetic field strength of 600 Gauss. The tube was 52 cm long. In 1953, a noise silencing moving field tube for low power stages was scheduled to be developed and, in 1954, another one with good efficiency in the final stages. the development of sets will be possible only after the completion of the development work in 1954 at the earliest. In early 1953, Funkwerk Koepenick was especially interested in the development of the LMS 100-type tube.
3. In the fourth quarter of 1952, experiments were made in the Funkwerk Koepenick with original American-made moving field tubes. They failed and were discontinued after a short time.

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 Comment. For sketch of the moving field tube, see Annex.

 Comment. The characteristics reported by the two sources disagree.

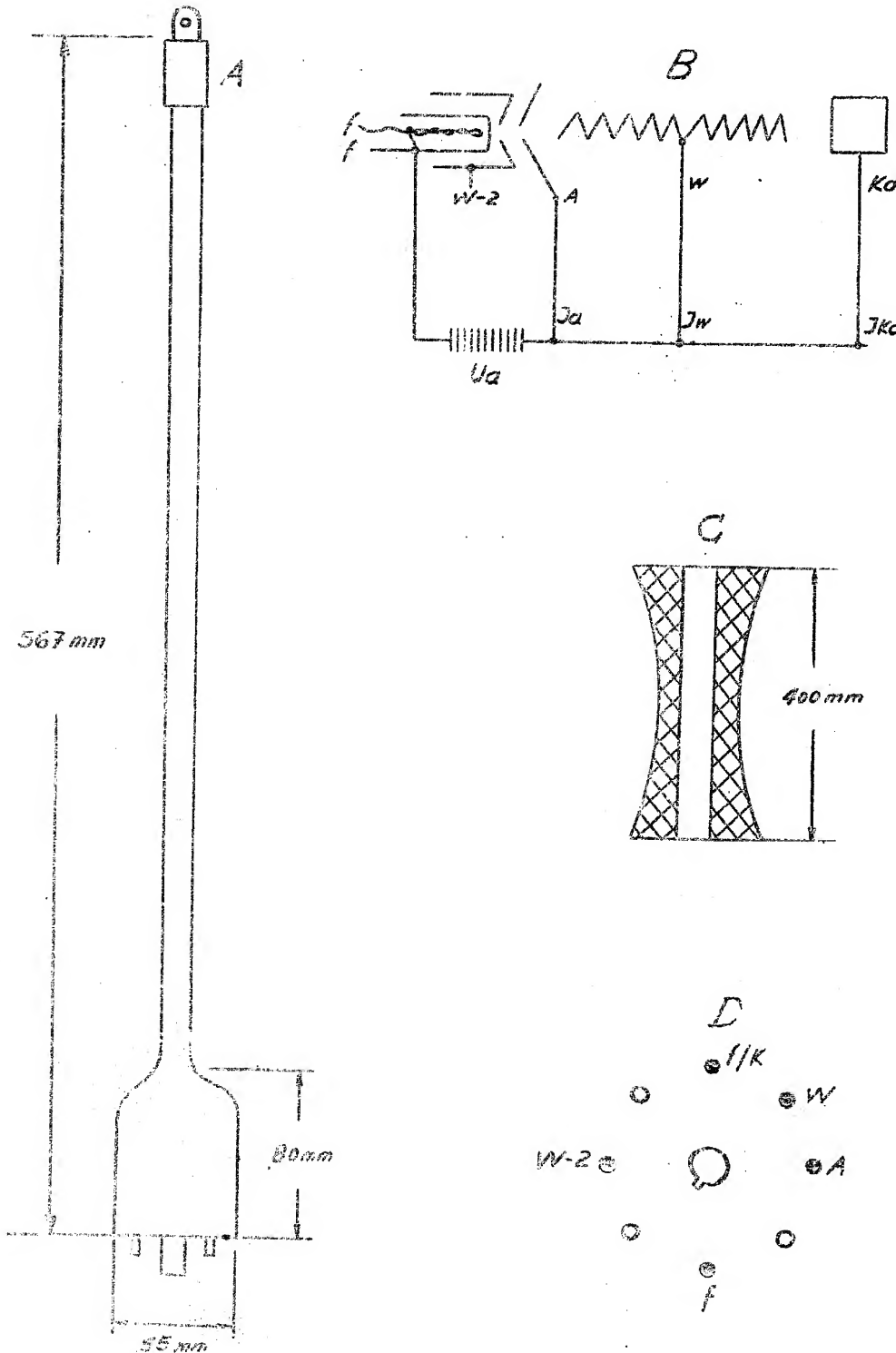
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Legend:

A Dimensioned sketch

B Wiring diagram

F filament

K cathode

W-Z Wehnelt-cylinder

A anode

W coiled filament

Ko collector

C Scheme of the magnet coil

The thickness of the winding is in the middle of the coil about half of that at the ends.

D Tube base, with octal fitting. For meaning of the letter, see B.

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